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United States Patent [19][11] **Patent Number:** **5,613,237****Bent et al.**[45] **Date of Patent:** **Mar. 18, 1997**[54] **HOUSING LATCH SYSTEM UTILIZING AN ELASTOMERIC INTERLOCKING BAND**[75] Inventors: **Michael S. Bent**, Greenacres; **Melvin Teitzman**, Lantana; **Christopher R. Long**, Boca Raton, all of Fla.[73] Assignee: **Motorola, Inc.**, Schaumburg, Ill.[21] Appl. No.: **323,975**[22] Filed: **Oct. 17, 1994**[51] Int. Cl.⁶ **H04B 1/08**[52] U.S. Cl. **455/351; 455/347; 361/752; 361/814; 220/4.02**[58] **Field of Search** **455/347, 348, 455/349, 351, 89, 90; 361/730, 732, 752, 755, 758, 759, 814; 220/4.02, 4.21, 648, 683, 686**[56] **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—Chi H. Pham*Assistant Examiner*—Thanh Le*Attorney, Agent, or Firm*—John H. Moore[57] **ABSTRACT**

A latch system for a housing includes front and rear housing sections (204, 202) having a common side periphery (212) when assembled. The housing sections (204, 202) include wall segments (208, 206) projecting therefrom. Each wall segment (208, 206) has a locking side (214) adjacent and parallel to the common side periphery (212) and has a recess (402, 210) therein for mating with an elastomeric interlocking band (100). The elastomeric interlocking band (100) includes teeth (102, 103) projecting therefrom for engaging with the recesses (402, 210) in the wall segments (208, 206). To latch together the front and rear housing sections (204, 202) the elastomeric interlocking band (100) is slidably assembled onto the wall segments (208, 206) of a first housing section (204, 202) until the teeth (102, 103) engage with the recesses (402, 210) therein. The wall segments (208, 206) of the remaining housing section (204, 202) are then slidably assembled into the elastomeric interlocking band (100) until the teeth (102, 103) engage with the recesses (402, 210) in the wall segments (208, 206) of the remaining housing section (204, 202), thereby latching together the front and rear housing sections (204, 202).

20 Claims, 5 Drawing Sheets